

HBO Microlithography Lamps for ASML i-line Systems



Areas of application

- Microlithography

Product features and benefits

- High spectral intensity with peak irradiance at 365nm wavelength, making it ideal for microlithography
- Designed for long lasting performance
- Qualified with ASML
- Qualified with ASML



Product family datasheet

Technical data

| General Product Information | | | | |
|-------------------------------|---------------------------|---------------------------|--------------|------------------------|
| Product description | Product number (Americas) | Product name (Americas) | Family brand | Global order reference |
| HBO 1003 W/PIL | 69180 | HBO 1003 W/PIL | HBO | HBO 1003 W/PIL |
| HBO 1500 W/PIL | 69181 | HBO 1500W/PIL 6/CS 1/SKU | HBO | HBO 1500 W/PIL |
| HBO 2100 W/PIL | 69501 | HBO 2100W/PIL 1/CS 1/SKU | HBO | HBO 2100 W/PIL |
| HBO 2500 W/PIL | 69172 | HBO 2500W/PIL 1/CS 1/SKU | HBO | HBO 2500 W/PIL |
| HBO 3500 W/PIL | 69117 | HBO 3500W/PIL 4/CS 1/SKU | | HBO 3500 W/PIL |
| HBO 5500 W/PIL | 69521 | HBO 5500W/PIL 1/CS 1/SKU | HBO | HBO 5500 W/PIL |
| HBO 5510 W/PIHL ¹⁾ | 69556 | HBO 5510W/PIHL 1/CS 1/SKU | HBO | HBO 5510 W/PIHL |

| Product description | Lamp type | Electrical Data | | Photometric Data |
|-------------------------------|--------------|-----------------|-----------------|---------------------------|
| | | Nominal wattage | Nominal voltage | Light center length (LCL) |
| HBO 1003 W/PIL | | 1003 W | 27.1 V | 85.0 mm ²⁾ |
| HBO 1500 W/PIL | DOUBLE ENDED | 1500 W | 23 V | 118.0 mm ²⁾ |
| HBO 2100 W/PIL | | 2100 W | 24 V | 118.0 mm ²⁾ |
| HBO 2500 W/PIL | DOUBLE ENDED | 2500 W | 28.0 V | 149.0 mm ²⁾ |
| HBO 3500 W/PIL | | 3500 W | 23 V | 154.0 mm ²⁾ |
| HBO 5500 W/PIL | | 5500 W | 27 V | 154.0 mm ²⁾ |
| HBO 5510 W/PIHL ¹⁾ | | 5500 W | 29 V | 154.0 mm ²⁾ |

| Product description | Physical Attributes & Dimensions | Operating Conditions | | Lifetime Data |
|-------------------------------|----------------------------------|----------------------|----------------------|------------------|
| | Length | Burning position | Cooling | Nominal lifetime |
| HBO 1003 W/PIL | 195.0 mm | Other ³⁾ | Forced ⁴⁾ | 1500 hr |
| HBO 1500 W/PIL | 273.0 mm | Other ³⁾ | Forced ⁴⁾ | 1500 hr |
| HBO 2100 W/PIL | 240.0 mm | Other ³⁾ | | 1500 hr |
| HBO 2500 W/PIL | 340.0 mm | Other ⁵⁾ | Forced ⁴⁾ | 1500 hr |
| HBO 3500 W/PIL | 360.0 mm | Other ⁵⁾ | Forced ⁴⁾ | |
| HBO 5500 W/PIL | 325.5 mm | Other ⁵⁾ | Forced ⁴⁾ | 1500 hr |
| HBO 5510 W/PIHL ¹⁾ | 352.5 mm | Other ⁵⁾ | | 1500 hr |

Product family datasheet

| Environmental & Regulatory Information Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH) | | | | |
|---|-------------------------------|---|----------------------------|------------------------|
| Product description | Primary article identifier | Declaration no. in SCIP database | Candidate list substance 1 | CAS No. of substance 1 |
| HBO 1003 W/PIL | 4050300461380 4050300967097 | b9c92b80-c1d8-4748-8fda-1d2d66728131 31a5877e-d4ec-4106-b4a4-a38a88565ee5 | Lead | 7439-92-1 |
| HBO 1500 W/PIL | 4050300967103 4050300461465 | 910a2e30-b741-4571-8470-190c5ee7888d e22d7304-fdce-45fd-8d2a-6aa5291d1a5b | Lead | 7439-92-1 |
| HBO 2100 W/PIL | 4050300800431 | e65b3165-1b6a-4da8-9fd8-852bef40597d | Lead | 7439-92-1 |
| HBO 2500 W/PIL | 4050300947396 | 7eee76a5-c4d5-4b9f-b456-ddffe12f4ebb | Lead | 7439-92-1 |
| HBO 3500 W/PIL | 4008321355843 | 34bb99bc-0897-4e24-883a-0817db1e7cd5 | Lead | 7439-92-1 |
| HBO 5500 W/PIL | 4008321352293 | 6b7278b8-d3b4-462a-9326-20823adb4178 | Lead | 7439-92-1 |
| HBO 5510 W/PIHL ¹⁾ | 4008321355799 | b89719ab-c1e6-4c02-9129-76d93997743b | Lead | 7439-92-1 |

| Product description | Safe use instruction |
|---------------------|--|
| HBO 1003 W/PIL | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 1500 W/PIL | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 2100 W/PIL | The identification of the Candidate List substance is sufficient to allow safe use of the article. |

Product family datasheet

| Product description | Safe use instruction |
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| HBO 2500 W/PIL | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 3500 W/PIL | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 5500 W/PIL | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 5510 W/PIHL ¹⁾ | The identification of the Candidate List substance is sufficient to allow safe use of the article. |

1) Lamp contains overpressure even in cold status - additional safety regulations, supplied with the lamps, have to be fulfilled. Please read Technical bulletin DO-SEM TB 004 carefully

2) Distance from end of base to tip of anode or cathode (cold)

3) Anode underneath

4) Maximum permissible base temperature: 200 °C

5) Anode on top

Product family datasheet

Safety advice

Because of their high luminance, UV radiation and high internal pressure (when hot) HBO lamps may only be operated in enclosed lamp casings specially constructed for the purpose. Mercury is released if the lamp breaks. Special safety precautions must be taken. More information is available on request or can be found in the leaflet included with the lamp or in the operating instructions.

Application advice

For more detailed application information and graphics please see product datasheet.

Disclaimer

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.